

# Conditional Loop Practice

## Question 1:

Write a program that will ask the user for a number between 5 and 12. Your program will then use a single conditional loop to find the **sum** of all the **even** numbers from 1 to the number given by the user, and it will find the **product** of all of the **odd** numbers. Output your results. Do this using only **ONE** conditional loop, no counted loops

- Using 12 as a test value you should get:
  - Sum: 42, Product: 10395

Things to think about:

- How do you know if a number is even or odd?
- Where do you store the current sum and product?
- How do you know when to stop looping?

## Question 2:

A perfect number is a positive integer equal to the sum of all its divisors (including 1 but excluding the number itself).

**For example:  $28 = 1 + 2 + 4 + 7 + 14$**

Write a program to find the first four perfect numbers and display them on the screen

HINT:

Remember modulus, %, it will help you find divisors. E.g.  $6 \% 2 = 0$ , means 2 is an even divisor of 6, and an even number